



Hemolytic disease of the new born- Erythroblastosis Fetalis

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Abstract

The study aims at knowing what is Erythroblastosis Fetalis, how it is caused and what are different methods of treatments. During exposure to Rh+ blood cells, Rh-ve mother becomes sensitized and there will be synthesis of anti-Rh antibody in her body. These antibodies cross the placenta and there will be destruction of red blood cells of Rh+ baby. The child will be anemic and there will be development of Jaundice. There will be elevated bilirubin levels. On the infant's tissue, elevated bilirubin level can be fixed(Dawson & Milne, 1967) .

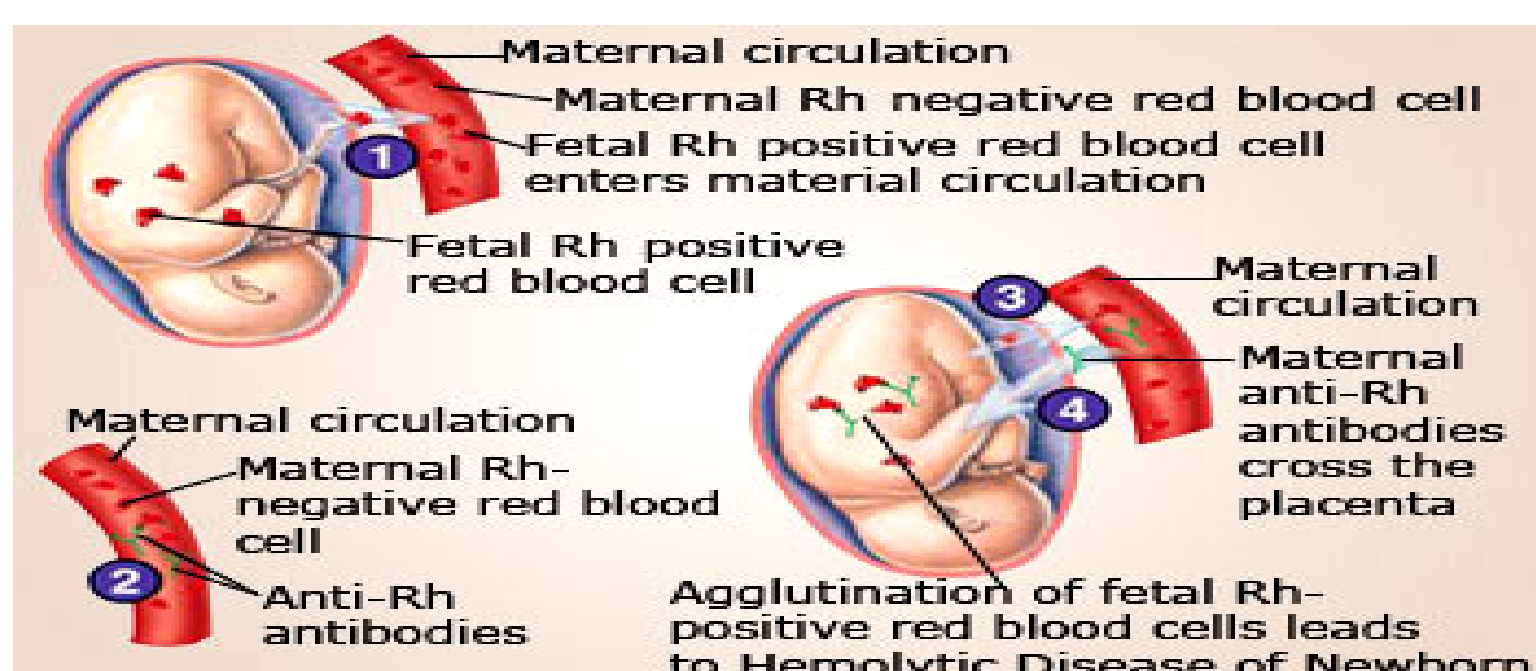


Fig-1

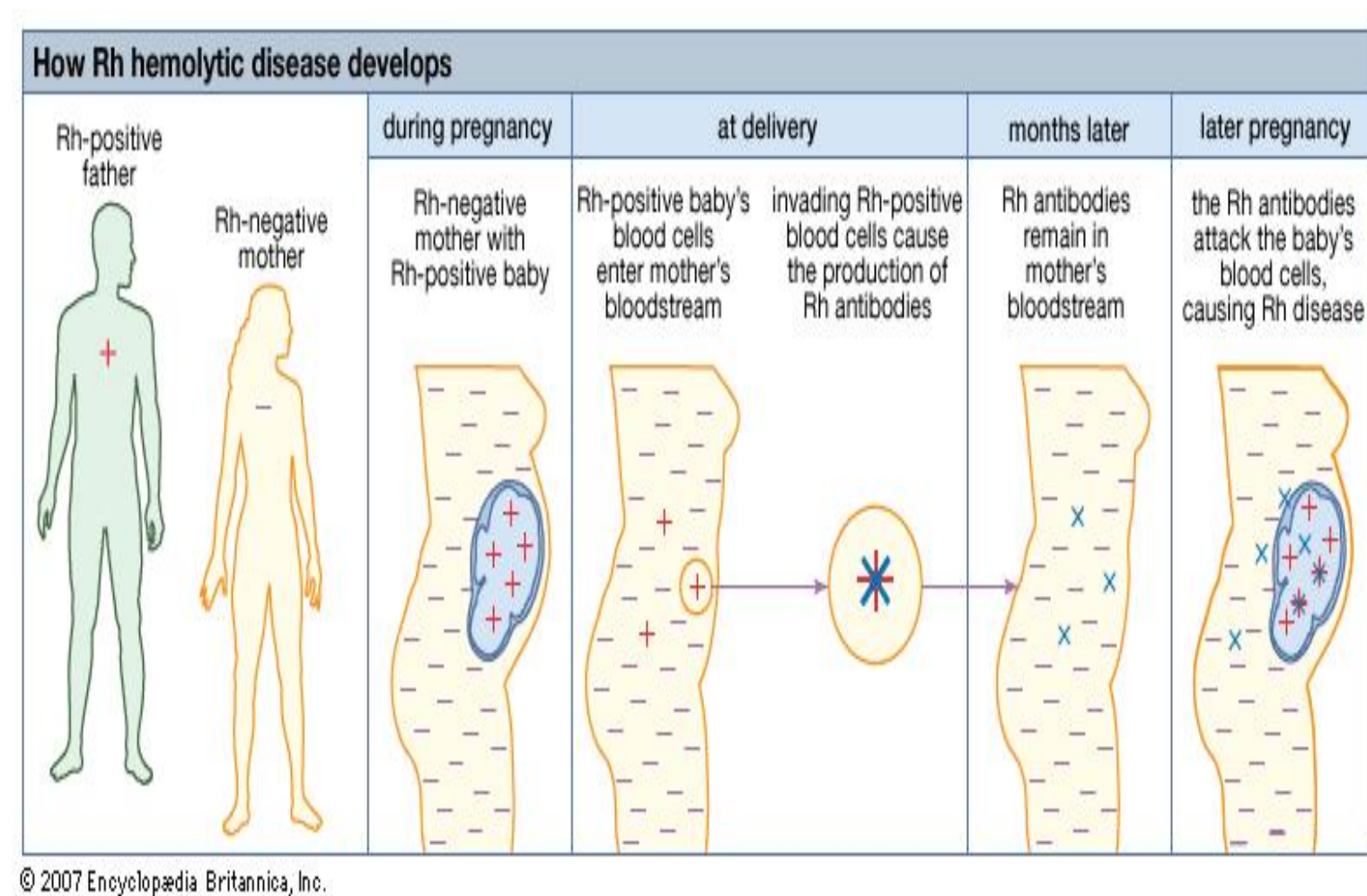


Fig-2

Introduction

When the father is Rh+ and the mother is Rh-ve, then the baby will be Rh+. The baby with Rh+ blood cells when enter mother's bloodstream, the evading Rh+ blood cells cause the production of antibody called anti-Rh antibody. These antibodies remain in mother's bloodstream and attack the baby's blood cells causing Rh disease called Erythroblastosis Fetalis. Mostly in case of this disease, during first pregnancy the child is unaffected due to separate maternal and fetal circulation. But during second pregnancy the mother will already have anti Rh antibodies and fetal Rh+ blood is attacked by Rh antigens of mother(Sadowsky & Brzezinski, 1949).

Chapter 7 Hemolytic Disease of the Newborn

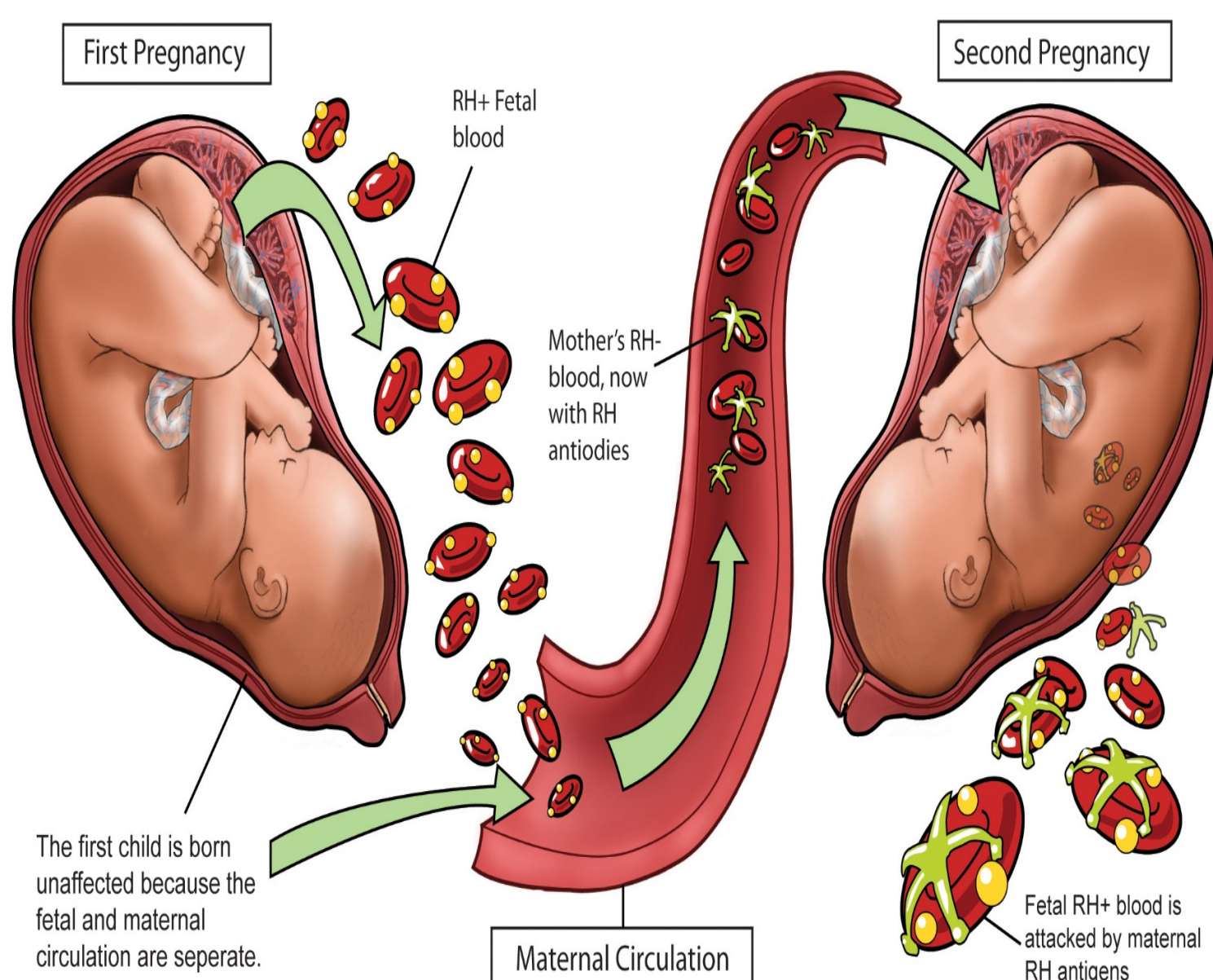


Fig-3

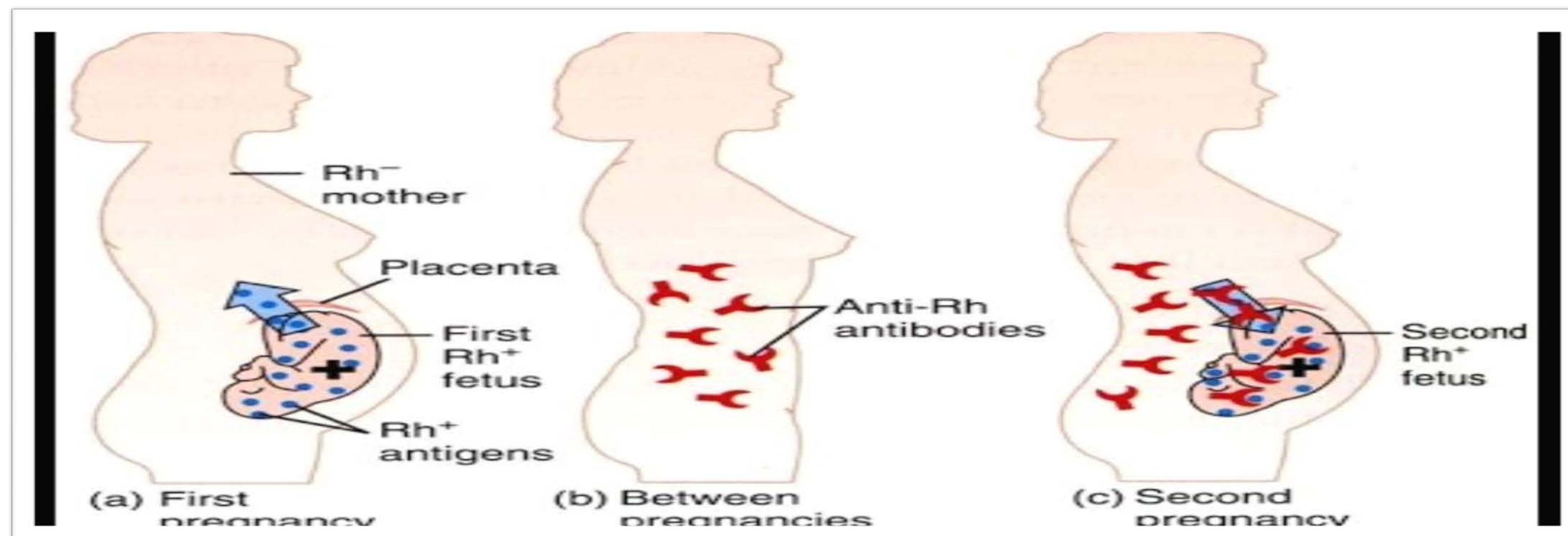


Fig-4

Symptoms

- Swelling occurs in newborn baby due to excess fluid trapped in body tissue.
- Jaundice



Fig 5- Child suffering from Edema



Fig 6- Child suffering from Jaundice

Treatment of the disease

Intrauterine Transfusion

Intrauterine blood transfusion is mostly practiced as there is a greater chance of survival for anemic fetus. If this transfusion is given then fetal Rh+ cells are replaced by Rh-ve cells. Until delivery, this transfusion can be given every two to three weeks. It is done to remove bilirubin. Low level of UV light is also exposed to infants to breakdown bilirubin and prevent cerebral damage (Garabedian et al., 2014).

Plasmapheresis

During pregnancy, mother can also be treated by plasmapheresis. It is the separation of liquid of blood or plasma from the cells. Plasmapheresis is mostly done when intrauterine transfusion is expected early. This process postpone the transfusion to later gestational period as intrauterine transfusion before 20 weeks of pregnancy is threatening (Houston et al).

Prevention

Rhogam can be used as a preventive measure as when it is administered to mother just after the delivery of the first child, it neutralizes Rh+ cells and prevent the production of anti-Rh antibody.

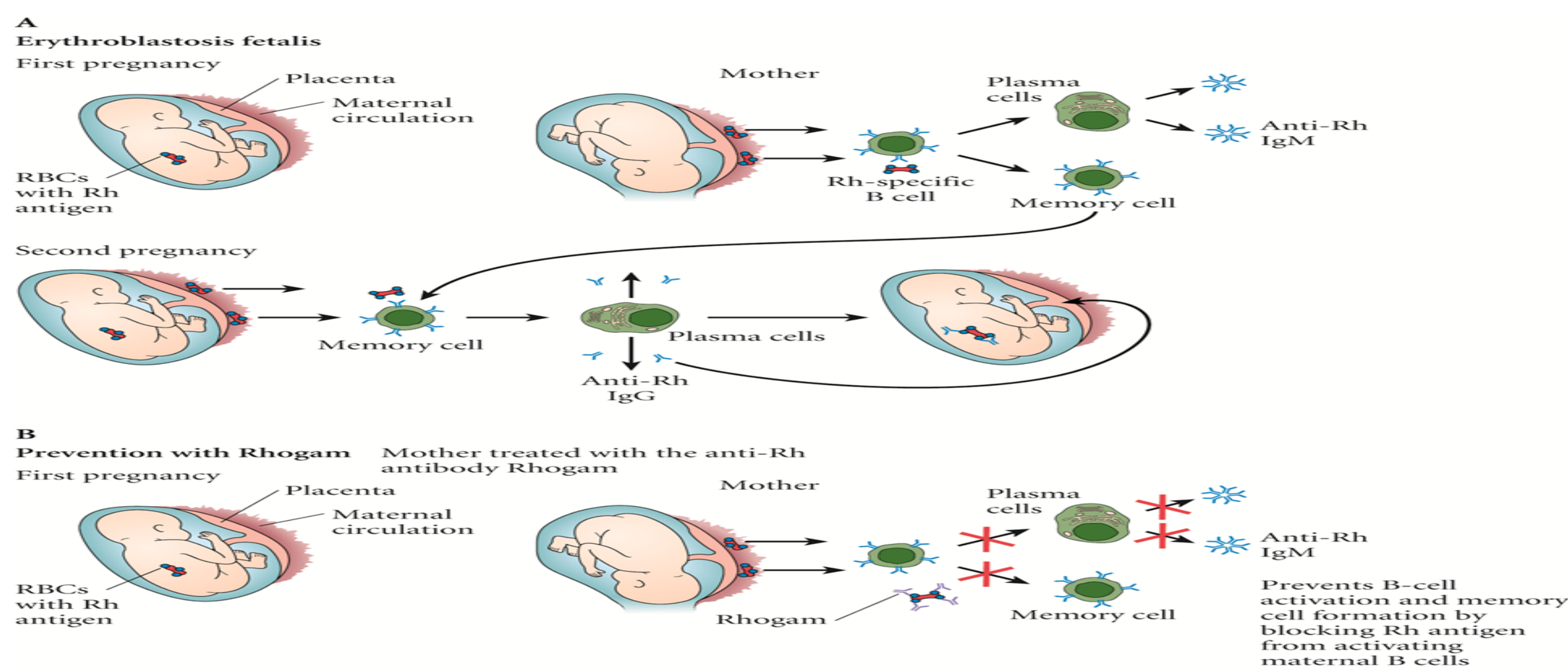


Fig-7

References:

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